## MAGNETIC STORM SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS (PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS)

## **July 2002**

<b>Storm</b> Day		Commencements (SSC) Quality: Station Group*	<b>Solar F</b> Day	Flare Effects (sfe) Begin-End	Station(s)
17	1604	A: HYB B: VAL* COI C: EBR LIV*	03	0209-0250	MMB+ KAK+ HTY+ KNY+ HYB ETT GNA+ CNB+
		-: ETT	04	0732-0750	MMB+ KAK+ HTY+ KNY+
19	1009	A: VAL*	11	0913-0925	NAG
		B: CLF* HRB NAG* SPT* HER	11	1446-1504	NGK VAL BDV CLF
		C: DOU BDV EBR* HYB	15	0620-0636	HYB ETT GNA+ CNB+
		-: ETT	15	0627-0638	HER
			15	2003-2025	MMB+ KAK+ KNY+
25	1336	B: SOD* VAL* C: NGK* BDV* CLF* COI SPT* LIV*	18	0332-0350	MMB+ KAK+ HTY+ KNY+
29	1321	A: VAL* NAG* COI SPT* B: SOD* NGK* BDV* CLF* HRB EBR* HYB	18	0741-0800	NGK BDV CLF MMB+ KAK+ KNY+ HYB ETT GNA+ HER
		GNA CNB LIV*	23	0026-0055	MMB+ KAK+ KNY+
		-: ETT	29	0229-0301	HTY+
			29	0234-0255	MMB+ KAK+ KNY+
			30	1134-1152	NAG

## REPORTING OBSERVATORIES (up to the 4th of September 2002):

SOD NUR NGK VAL DOU BDV CLF HRB NAG MMB EBR COI SPT KAK HTY KNY HYB ETT GNA HER CNB LIV

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, but unmistakable; C means very poor, doubtful; and - means no quality figure given. The \* means that the SSC, at least in one component, was preceded by a small reversed impulse. SSCs are given only when five or more stations report the event. SFEs include all reports. If an SFE is confirmed by solar or ionospheric events, the name of the station is identified with a plus sign (+).

Note that we have included data of the Antartic Station LIVINGSTONE (62° 39' 44" S, 60°23' 41" W) -- Luis F.